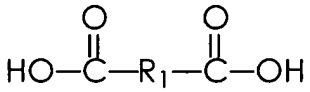
1. A process for preparing a tetra-amide which comprises carrying out a condensation reaction between a diacid, a monoacid, and a diisocyanate, thereby forming a tetra-amide.

2. A process according to claim 1 wherein the diacid is of the formula



wherein R_1 is an alkylene group, an arylene group, an arylalkylene group, or an alkylarylene group.

3. A process according to claim 2 wherein R_1 is an unsubstituted alkylene group, an unsubstituted arylene group, an unsubstituted arylalkylene group, or an unsubstituted alkylarylene group.

4. A process according to claim 2 wherein R_1 is a substituted alkylene group, a substituted arylene group, a substituted arylalkylene group, or a substituted alkylarylene group.

5. A process according to claim 2 wherein R_1 is an alkylene group having hetero atoms therein, an arylene group having hetero atoms therein, an arylalkylene group having hetero atoms therein, or an alkylarylene group having hetero atoms therein, provided that no hetero atoms are directly bonded to either of the carboxylic acid groups.

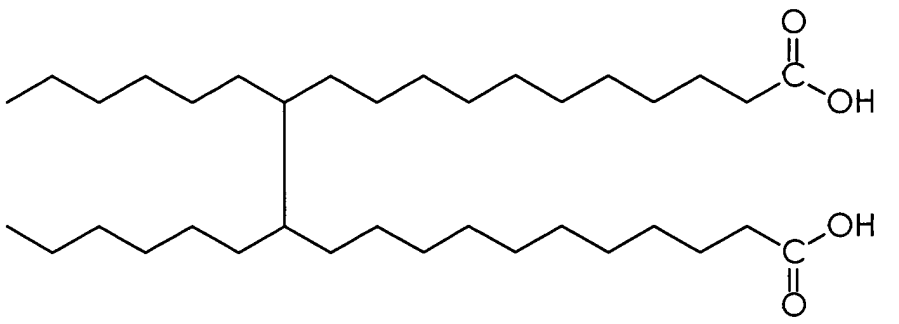
6. A process according to claim 2 wherein R_1 is an alkylene group having no hetero atoms therein, an arylene group having no hetero atoms therein, an arylalkylene group having no hetero atoms therein, or an alkylarylene group having no hetero atoms therein.

7. A process according to claim 2 wherein R_1 is a branched alkylene group having at least about 34 carbon atoms.

8. A process according to claim 2 wherein R_1 is a branched alkylene group having about 34 carbon atoms and which may include unsaturations and cyclic groups.

9. A process according to claim 2 wherein R_1 is a branched alkylene group of the formula $C_{34}H_{62+n}$ wherein n is an integer of 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, or 10.

10. A process according to claim 1 wherein the diacid is of the formula



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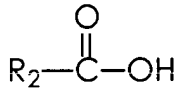
11. A process according to claim 1 wherein the diacid is malonic acid, methyl malonic acid, ethyl malonic acid, butyl malonic acid, dimethyl malonic acid, diethyl malonic acid, succinic acid, methyl succinic acid, dimethyl succinic acid, 2-ethyl-2-methyl succinic acid, 2,3-dimethyl succinic acid, glutaric acid, 2-methyl glutaric acid, 3-methyl glutaric acid, 2,2-dimethyl glutaric acid, 3,3-dimethyl glutaric acid, adipic acid, 3-methyl adipic acid, 3-tert-butyl adipic acid, pimelic acid, suberic acid, azelaic acid, sebacic acid, 1,11-undecanedicarboxylic acid, undecanedioic acid, 1,10-decanedicarboxylic acid, 1,12-dodecanedicarboxylic acid, hexadecanedioic acid, docosanedioic acid, tetracosanedioic acid, itaconic acid, maleic acid, fumaric acid, citraconic acid, mesaconic acid, glutaconic acid, β-hydromuconic acid, traumatic acid, muconic acid, aconitic acid, chlorosuccinic acid, bromosuccinic acid, 2,3-dibromosuccinic acid, tetrafluorosuccinic acid, hexafluoroglutaric acid, perfluoroadipic acid, perfluorosuberic acid, 3-chlorododecanedioic acid, dibromomaleic acid, diglycolic acid, 3,6-dioxaoctanedioic acid, thiodiglycolic acid, 3,3'-thiodipropionic acid, 1,3-acetonedicarboxylic acid, 3-oxoadipic acid, 4-ketopimelic acid, 5-oxoazelaic acid, chelidonic acid, 1,2-cyclopentanedicarboxylic acid, 3,3-tetramethyleneglutaric acid, camphoric acid, cyclohexylsuccinic acid, 1,1-cyclohexanediacetic acid, 1,2-cyclohexanedicarboxylic acid, 1,3-cyclohexanedicarboxylic acid, 1,4-cyclohexanedicarboxylic acid, 1,3-adamantanedicarboxylic acid, 1,3-adamantanediacetic acid, 5-norbornene-2,3-dicarboxylic acid, 1,4,5,6,7,7-hexachloro-5-norbornene-2,3-dicarboxylic acid, phenylsuccinic acid, 3-phenylglutaric acid, 1,2-phenylenediacetic acid, 1,2-phenylenedioxydiacetic acid, homophthalic acid, 1,3-phenylenediacetic acid, 4-

carboxyphenoxyacetic acid, 1,4-phenylenediacetic acid, 1,4-phenylenedipropionic acid, 2-carboxycinnamic acid, 1,4-phenylenediacrylic acid, 2-carboxybenzenepropanoic acid, 4,4'-(hexafluoroisopropylidene)bis(benzoic acid), 4,4'-oxybis(benzoic acid), phthalic acid, isophthalic acid, terephthalic acid, 3-fluorophthalic acid, 2-methoxyisophthalic acid, 3-nitrophathalic acid, 4-methylphthalic acid, 2-bromoterephthalic acid, 4-bromoisophthalic acid, 4-nitrophthalic acid, nitroterephthalic acid, 5-tert-butylisophthalic acid, 5-octadecyloxyisophthalic acid, 5-nitroisophthalic acid, 4,5-dichlorophthalic acid, tetrafluoroterephthalic acid, tetrafluoroisophthalic acid, tetrafluorophthalic acid, diphenic acid, 4,4'-biphenyldicarboxylic acid, 4-[4-(2-carboxybenzoyl)phenyl]butyric acid, 1,4-naphthalenedicarboxylic acid, 2,3-naphthalenedicarboxylic acid, 2,6-naphthalenedicarboxylic acid, 2,7-di-tert-butyl-9,9-dimethyl-4,5-xanthenedicarboxylic acid, phenylmalonic acid, benzylmalonic acid, or mixtures thereof.

12. A process according to claim 1 wherein the monoacid is of the formula



wherein R_2 is an alkyl group, an aryl group, an arylalkyl group, or an alkylaryl group.

13. A process according to claim 12 wherein R_2 is an unsubstituted alkyl group, an unsubstituted aryl group, an unsubstituted arylalkyl group, or an unsubstituted alkylaryl group.

14. A process according to claim 12 wherein R_2 is a substituted alkyl group, a substituted aryl group, a substituted arylalkyl group, or a substituted alkylaryl group.

15. A process according to claim 12 wherein R_2 is an alkyl group having hetero atoms therein, an aryl group having hetero atoms therein, an arylalkyl group having hetero atoms therein, or an alkylaryl group having hetero atoms therein, provided that no hetero atoms are directly bonded to the carboxylic acid group.

16. A process according to claim 2 wherein R_1 is an alkylene group having no hetero atoms therein, an arylene group having no hetero atoms therein, an arylalkylene group having no hetero atoms therein, or an alkylarylene group having no hetero atoms therein.

17. A process according to claim 1 wherein the monoacid is acetic acid, propionic acid, butyric acid, valeric acid, hexanoic acid, heptanoic acid, octanoic acid, nonanoic acid, decanoic acid, undecanoic acid, lauric acid, tridecanoic acid, myristic acid, pentadecanoic acid, palmitic acid, heptadecanoic acid, stearic acid, nonadecanoic acid, eicosanoic acid, heneicosanoic acid, docosanoic acid, tricosanoic acid, tetracosanoic acid, hexacosanoic acid, heptacosanoic acid, octacosanoic acid, triacontanoic acid, isobutyric acid, 2-ethylbutyric acid, trimethylacetic acid, 2-methylbutyric acid, isovaleric acid, 2,2-dimethylbutyric acid, tert-butylacetic acid, 2-methylvaleric acid, 2-propylpentanoic acid, 3-methylvaleric acid, 4-methylvaleric acid, 2-methylhexanoic acid, 2-ethylhexanoic acid, acrylic acid, methacrylic acid, crotonic acid, vinylacetic acid, tiglic acid, 3,3-dimethylacrylic acid, 2-pentenoic acid, 4-pentenoic acid, 2-methyl-2-pentenoic acid, 2,2-dimethyl-4-pentenoic acid, 2-hexenoic acid, 3-hexenoic acid, 2-ethyl-2-hexenoic acid, 6-heptenoic acid, 2-octenoic acid, citronellic acid, undecylenic acid, myristoleic acid, palmitoleic acid, oleic acid, elaidic acid, 11-eicosenoic acid, erucic acid, nervonic acid, chloroacetic acid, bromoacetic acid, iodoacetic acid, difluoroacetic acid, dichloroacetic acid, dibromoacetic acid, trifluoroacetic acid, chlorodifluoroacetic acid, trichloroacetic acid, tribromoacetic acid, 2-chloropropionic acid, 3-chloropropionic acid, 2-bromopropionic acid, 3-bromopropionic acid, 2-iodopropionic acid, 3-iodopropionic acid, 2,2-dichloropropionic acid, 2,3-dibromopropionic acid, pentafluoropropionic acid, 2-bromo-2-methylpropionic acid, 3-bromo-2-(bromomethyl)-propionic acid, 3-chloropivalic acid, 3,3-dichloropivalic acid, 4-chlorobutyric acid, 2-bromobutyric acid, 4-bromobutyric acid, heptafluorobutyric acid, 2-

bromo-3-methylbutyric acid, 5-chlorovaleric acid, 2-bromovaleric acid, 5-bromovaleric acid, nonafluoropentanoic acid, 2-bromohexanoic acid, 6-bromohexanoic acid, tridecafluoroheptanoic acid, 2-bromooctanoic acid, 8-brommooctanoic acid, pentadecafluorooctanoic acid, heptadecafluorononanoic acid, nonadecafluorodecanoic acid, perfluorosebacic acid, 11-bromoundecanoic acid, 12-bromododecanoic acid, perfluorododecanoic acid, 2-bromotetradecanoic acid, 2-bromohexadecanoic acid, 3-chloroacrylic acid, 2-bromoacrylic acid, 2-(trifluoromethyl)acrylic acid, 2-(bromomethyl)acrylic acid, 4,4,4-trifluoro-3-methyl-2-butenoic acid, methoxyacetic acid, ethoxyacetic acid, 3-methoxypropionic acid, 2-(2-methoxyethoxy)acetic acid, 2-[2-(methoxyethoxy)ethoxy]acetic acid, tetrahydro-2-furoic acid, tetrahydro-3-furoic acid, 2,3,4,6-di-O-isopropylidene-2-ketogluconic acid, 3-nitropropionic acid, 6-nitrocaproic acid, 12-nitrododecanoic acid, succinic semialdehyde, levulinic acid, 4-acetylbutyric acid, 6-oxoheptanoic acid, 7-oxooctanoic acid, 4,6-dioxoheptanoic acid, 3,4-dihydro-2,2-dimethyl-4-oxo-2H-pyran-6-carboxylic acid, cyclopentanecarboxylic acid, cyclopentylacetic acid, 3-cyclopentylpropionic acid, 3-methyl-2-(nitromethyl)-5-oxocyclopentaneacetic acid, cyclohexanecarboxylic acid, cyclohexylacetic acid, dicyclohexylacetic acid, cyclohexanepropionic acid, cyclohexanebutyric acid, cyclohexanepentanoic acid, 1-methyl-1-cyclohexanecarboxylic acid, 2-methyl-1-cyclohexanecarboxylic acid, 3-methyl-1-cyclohexanecarboxylic acid, 4-methyl-1-cyclohexanecarboxylic acid, 4-tert-butylcyclohexanecarboxylic acid, 4-pentylcyclohexanecarboxylic acid, 4-methylcyclohexaneacetic acid, 3-methoxycyclohexanecarboxylic acid, 4-

methoxycyclohexanecarboxylic acid, cyclohexanecarboxylic acid, 2-norbornaneacetic acid, 4-pentylbicyclo[2.2.2]octane-1-carboxylic acid, 3-oxotricyclo[2.2.1.0(2,6)]-heptane-1-carboxylic acid, 3-noradamantanecarboxylic acid, 1-adamantanecarboxylic acid, 1-adamantaneacetic acid, 1-cyclopentene-1-carboxylic acid, 2-cyclopentene-1-acetic acid, 1-cyclohexene-1-carboxylic acid, 1-methyl-2-cyclohexene-1-carboxylic acid, 1,4-dihydro-2-methylbenzoic acid, retinoic acid, ketopinic acid, abietic acid, phenylacetic acid, 1-phenyl-1-cyclopentanecarboxylic acid, α-phenylcyclopentaneacetic acid, diphenylacetic acid, triphenylacetic acid, 2-phenylpropionic acid, hydrocinnamic acid, α-methylhydrocinnamic acid, α-(tert-butyl)hydrocinnamic acid, 2,2-diphenylpropionic acid, 3,3-diphenylpropionic acid, 3,3,3-triphenylpropionic acid, 2-phenylbutyric acid, 3-phenylbutyric acid, 4-phenylbutyric acid, 5-phenylvaleric acid, 3-methyl-2-phenylvaleric acid, 6-phenylhexanoic acid, α-fluorophenylacetic acid, α-bromophenylacetic acid, α-methoxyphenylacetic acid, phenoxyacetic acid, α,β-dibromohydrocinnamic acid, 3-phenoxypropionic acid, 2-phenoxypropionic acid, 11-phenoxyundecanoic acid, 2-phenoxybutyric acid, α-methoxy-α-(trifluoromethyl)phenylacetic acid(phenylthio)acetic acid, 3-(phenylthio)acrylic acid, benzylthioglycolic acid, 2-ethylthio-2,2-diphenylacetic acid, 3-benzoylpropionic acid, 2-methyl-4-oxo-4-phenylbutyric acid, 4-benzoylbutyric acid, o-tolylacetic acid, 3-oxo-1-indancarboxylic acid, 1,2,3,4-tetrahydro-2-naphthoic acid, (α,α,α-trifluoro-o-tolyl)acetic acid, 2-fluorophenylacetic acid, 2-chlorophenylacetic acid, 2-bromophenylacetic acid, 2-iodophenylacetic acid, 2-(2-chlorophenoxy)propionic acid, 2-methoxyphenylacetic acid, 3-(2-

methoxyphenyl)propionic acid, 2-nitrophenylacetic acid, 2-formylphenoxyacetic acid, m-tolylacetic acid, 3-fluorophenylacetic acid, 3-chlorophenylacetic acid, 3-bromophenylacetic acid, 2-(3-chlorophenoxy)propionic acid, (α,α,α-trifluoro-m-tolyl)acetic acid, 3-methoxyphenylacetic acid, 3-nitrophenylacetic acid, p-tolylacetic acid, 3-(p-tolyl)propionic acid, (4-methylphenoxy)acetic acid, 4-isobutyl-α-methylphenylacetic acid, 4-acetylphenoxyacetic acid, 4-(4-chloro-o-tolyloxy)butyric acid, 4-fluorophenylacetic acid, (α,α,α-trifluoro-p-tolyl)acetic acid, 3-(4-fluorobenzoyl)propionic acid, 3-(4-chlorobenzoyl)propionic acid, 4-chlorophenylacetic acid, bis(4-chlorophenyl)acetic acid, 4-bromophenylacetic acid, 3,3,3-tris(4-chlorophenyl)propionic acid, 4-(bromomethyl)phenylacetic acid, 1-(4-chlorophenyl)-1-cyclopentanecarboxylic acid, 4-methoxyphenylacetic acid, 4-ethoxyphenylacetic acid, 3-(4-methoxyphenyl)propionic acid, 4-(4-methoxyphenyl)propionic acid, 4-chlorophenoxyacetic acid, bis(4-chlorophenoxy)acetic acid, 4-(methylthio)-phenylacetic acid, 4-nitrophenylacetic acid, 2-(4-nitrophenyl)propionic acid, 4-(4-nitrophenyl)butyric acid, 3-(4-methoxybenzoyl)propionic acid, 4-fluorophenoxyacetic acid, 2-(4-chlorophenoxy)propionic acid, 2-(4-chlorophenoxy)2-methylpropionic acid, (2,4-di-tert-pentylphenoxy)acetic acid, 2,6-difluorophenylacetic acid, 2,4-difluorophenylacetic acid, 2,5-difluorophenylacetic acid, 3,5-difluorophyenylacetic acid, 4-chloro-o-tolyloxyacetic acid, 2,3-dichlorophenoxyacetic acid, 2,6-dichlorophenylacetic acid, 2,4-dichlorophenylacetic acid, 2,4-dichlorophenoxyacetic acid, 3,4-dichlorophenylacetic acid, 3,4-dichlorophenoxyacetic acid, 3,5-bis(trifluoromethyl)phenylacetic acid, 4-(2,4-di-tert-pentylphenoxy)butyric acid, 2-(2,4-dichlorophenoxy)propionic acid, 4-

(2,4-dichlorophenoxy)propionic acid, 2,4,5-trichlorophenoxyacetic acid, 2-(2,4,5-trichlorophenoxy)propionic acid, (3,4-dimethoxyphenyl)acetic acid, 4-benzyloxy-3-methoxyphenylacetic acid, 3,4-(methylenedioxy)phenylacetic acid, 5-methoxy-1-indanone-3-acetic acid, 3-(3,4-dimethoxyphenyl)propionic acid, 4-(3,4-dimethoxyphenyl)butyric acid, (2,5-dimethoxyphenyl)acetic acid, 2,4-dinitrophenylacetic acid, (3,5-dimethoxyphenyl)acetic acid, 3,4,5-trimethoxyphenylacetic acid, 3-(3,4,5-trimethoxyphenyl)propionic acid, 2,3,4,5,6-pentafluorophenylacetic acid, 4-biphenylacetic acid, 1-naphthylacetic acid, 2-naphthylacetic acid, α-trityl-2-naphthalenepropionic acid, (1-naphthoxy)acetic acid, (2-naphthoxy)acetic acid, 6-methoxy-α-methyl-2-naphthaleneacetic acid, 9-fluoreneacetic acid, 1-pyreneacetic acid, 1-pyrenebutyric acid, γ-oxo-1-pyrenebutyric acid, styrylacetic acid, cinnamic acid, α-methylcinnamic acid, α-fluorocinnamic acid, α-phenylcinnamic acid, 2-methylcinnamic acid, 2-fluorocinnamic acid, 2-(trifluoromethyl)cinnamic acid, 2-chlorocinnamic acid, 2-methoxycinnamic acid, 2-nitrocinnamic acid, 3-fluorocinnamic acid, 3-(trifluoromethyl)cinnamic acid, 3-chlorocinnamic acid, 3-bromocinnamic acid, 3-methoxycinnamic acid, 3-nitrocinnamic acid, 4-methylcinnamic acid, 4-fluorocinnamic acid, 4-(trifluoromethyl)cinnamic acid, 4-chlorocinnamic acid, 4-bromocinnamic acid, 4-methoxycinnamic acid, 4-nitrocinnamic acid, 4-formylcinnamic acid, 2,6-difluorocinnamic acid, 2,4-difluorocinnamic acid, 2,5-difluorocinnamic acid, 3,4-difluorocinnamic acid, 3,5-difluorocinnamic acid, 2-chloro-6-fluorocinnamic acid, 2,4-dichlorocinnamic acid, 3,4-dichlorocinnamic acid, 5-bromo-2-methoxycinnamic acid, 2,3-dimethoxycinnamic acid, 2,4-

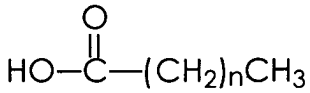
dimethoxycinnamic acid, 2,5-dimethoxycinnamic acid, 3,4-dimethoxycinnamic acid, 3,4-(methylenedioxy)cinnamic acid, 3,5-dimethoxycinnamic acid, 2-chloro-5-nitrocinnamic acid, 4-chloro-3-nitrocinnamic acid, 2,3,4-trifluorocinnamic acid, 3,4,5-trimethoxycinnamic acid, 2,4,5-trimethoxycinnamic acid, α-methyl-2,4,5-trimethoxycinnamic acid, 4,5-dimethoxy-2-nitrocinnamic acid, 2,3,4,5,6-pentafluorocinnamic acid, 3-methylindene-2-carboxylic acid, 3-(4-methylbenzoyl)acrylic acid, 3-(2,5-dimethylbenzoyl)acrylic acid, 3-(2,3,5,6-tetramethylbenzoyl)acrylic acid, 3-(4-methoxybenzoyl)acrylic acid, 3-(4-ethoxybenzoyl)acrylic acid, 6-methylchromone-2-carboxylic acid, benzoic acid, o-toluic acid, 2-fluorobenzoic acid, α,α,α-trifluoro-o-toluic acid, 2-chlorobenzoic acid, 2-bromobenzoic acid, 2-iodobenzoic acid, o-anisic acid, 2-ethoxybenzoic acid, 2-nitrobenzoic acid, 2-acetylbenzoic acid, 2-(p-toluoyl)benzoic acid, m-toluic acid, 3-fluorobenzoic acid, α,α,α-trifluoro-m-toluic acid, 3-chlorobenzoic acid, 3-(chloromethyl)benzoic acid, 3-bromobenzoic acid, 3-iodobenzoic acid, m-anisic acid, 3-nitrobenzoic acid, 3-carboxybenzaldehyde, p-toluic acid, 4-ethylbenzoic acid, 4-n-propylbenzoic acid, 4-isopropylbenzoic acid, 4-n-butylbenzoic acid, 4-tert-butylbenzoic acid, 4-pentylbenzoic acid, 4-hexylbenzoic acid, 4-heptylbenzoic acid, 4-octylbenzoic acid, 4-vinylbenzoic acid, 4-fluorobenzoic acid, α,α,α-trifluoro-o-toluic acid, 4-chlorobenzoic acid, 4-bromobenzoic acid, 4-iodobenzoic acid, 4-(chloromethyl)benzoic acid, α-bromo-p-toluic acid, p-anisic acid, 4-(trifluoromethoxy)benzoic acid, 4-ethoxybenzoic acid, 4-n-propoxybenzoic acid, 4-butoxybenzoic acid, 4-pentyloxybenzoic acid, 4-hexyloxybenzoic acid, 4-heptyloxybenzoic acid, 4-octyloxybenzoic acid, 4-nonyloxybenzoic acid, 4-decyloxybenzoic acid, 4-nonyloxybenzoic acid, 4-dodecyloxybenzoic

acid, 4-isopropoxybenzoic acid, 4-(2-cyclohexenyloxy)benzoic acid, 4-(methylthio)benzoic acid, 4-(ethylthio)benzoic acid, 4-nitrobenzoic acid, 4-acetylbenzoic acid, 4-carboxybenzaldehyde, 2,3-dimethylbenzoic acid, 2,6-dimethylbenzoic acid, 3-fluoro-2-methylbenzoic acid, 2,3-difluorobenzoic acid, 2,6-difluorobenzoic acid, 2-fluoro-6-(trifluoromethyl)benzoic acid, 2-fluoro-3-(trifluoromethyl)benzoic acid, 2,6-bis(trifluoromethyl)benzoic acid, 2-chloro-6-fluorobenzoic acid, 2-chloro-6-fluorophenylacetic acid, 2,3-dichlorobenzoic acid, 2,6-dichlorobenzoic acid, 2,3-dimethoxybenzoic acid, 2,6-dimethoxybenzoic acid, 2-methyl-6-nitrobenzoic acid, 3-methyl-2-nitrobenzoic acid, 2-methyl-3-nitrobenzoic acid, 3-chloro-2-nitrobenzoic acid, 2-chloro-3-nitrobenzoic acid, 2-bromo-3-nitrobenzoic acid, 3-methoxy-2-nitrobenzoic acid, 3,4-dimethylbenzoic acid, 2,4-dimethylbenzoic acid, 2,5-dimethylbenzoic acid, 5-fluoro-2-methylbenzoic acid, 3-fluoro-4-methylbenzoic acid, 2-fluoro-5-methylbenzoic acid, 3-bromo-4-methylbenzoic acid, 2,4-bis(trifluoromethyl)benzoic acid, 3-iodo-4-methylbenzoic acid, 2-chloro-5-(trifluoromethyl)benzoic acid, 2,5-bis(trifluoromethyl)benzoic acid, 2,4-difluorobenzoic acid, 3,4-difluorobenzoic acid, 4-fluoro-2-(trifluoromethyl)benzoic acid, 2-fluoro-4-(trifluoromethyl)benzoic acid, 2-chloro-4-fluorobenzoic acid, 3-chloro-4-fluorobenzoic acid, 2,4-dichlorobenzoic acid, 3,4-dichlorobenzoic acid, 2,5-difluorobenzoic acid, 2,5-dichlorobenzoic acid, 3-bromo-4-fluorobenzoic acid, 5-bromo-2-chlorobenzoic acid, 3-methoxy-4-methylbenzoic acid, 3-fluoro-4-methoxybenzoic acid, 4-chloro-o-anisic acid, 5-chloro-o-anisic acid, 2-bromo-5-methoxybenzoic acid, 2,4-dimethoxybenzoic acid, 2,5-dimethoxybenzoic acid, 3,4-dimethoxybenzoic acid, 3,4-diethoxybenzoic acid, piperonylic acid, 2-chloro-5-(methylthio)benzoic

acid, 2-methoxy-4-(methylthio)benzoic acid, 5-methyl-2-nitrobenzoic acid, 4-methyl-3-nitrobenzoic acid, 3-methyl-4-nitrobenzoic acid, 2-nitro-α,α,α-trifluoro-p-toluic acid, 2-fluoro-5-nitrobenzoic acid, 4-chloro-2-nitrobenzoic acid, 2-chloro-4-nitrobenzoic acid, 4-fluoro-3-nitrobenzoic acid, 4-chloro-3-nitrobenzoic acid, 5-chloro-2-nitrobenzoic acid, 2-chloro-5-nitrobenzoic acid, 2-bromo-5-nitrobenzoic acid, 4-(bromomethyl)-3-nitrobenzoic acid, 2-methoxy-4-nitrobenzoic acid, 4-methoxy-3-nitrobenzoic acid, 3-methoxy-4-nitrobenzoic acid, 5-methoxy-2-nitrobenzoic acid, 2,4-dinitrobenzoic acid, 3,5-dimethylbenzoic acid, 3,5-di-tert-butylbenzoic acid, 3,5-difluorobenzoic acid, 3,5-bis(trifluoromethyl)benzoic acid, 3,5-dichlorobenzoic acid, 3,5-dibromobenzoic acid, 3-bromo-5-iodobenzoic acid, 3,5-dimethoxybenzoic acid, 3,5-dinitrobenzoic acid, 2,3,4-trifluorobenzoic acid, 2,3,6-trifluorobenzoic acid, 2,4,6-trimethylbenzoic acid, 2,4,6-trifluorobenzoic acid, 3,4,5-trifluorobenzoic acid, 2,4,6-trichlorobenzoic acid, 2,3,5-trichlorobenzoic acid, 2,3,5-triiodobenzoic acid, 2-bromo-4,5-dimethoxybenzoic acid, 3,4,5-trimethoxybenzoic acid, 3,4,5-triethoxybenzoic acid, 4,5-dimethoxy-2-nitrobenzoic acid, 3,5-dinitro-o-toluic acid, 3,5-dinitro-p-toluic acid, 2-chloro-3,5-dinitrobenzoic acid, 4-chloro-3,5-dinitrobenzoic acid, 2,5-dichloro-3-nitrobenzoic acid, 2,6-dichloro-3-nitrobenzoic acid, 2,3,4-trimethoxybenzoic acid, 2,4,5-trifluorobenzoic acid, 2-chloro-4,5-difluorobenzoic acid, 2,4-dichloro-5-fluorobenzoic acid, 2,4,5-trimethoxybenzoic acid, 2,3,4,5-tetrafluorobenzoic acid, 2,3,5,6-tetrafluorobenzoic acid, 2,4-dichloro-3,5-dinitrobenzoic acid, 2,3,5,6-tetrafluoro-p-toluic acid, 4-bromo-2,3,5,6-tetrafluorobenzoic acid, pentafluorobenzoic acid, 2-biphenylcarboxylic acid, 4'-(trifluoromethyl)-2-biphenylcarboxylic acid, 4-biphenylcarboxylic acid, 4'-ethyl-4-biphenylcarboxylic acid, 4'-octyloxy-

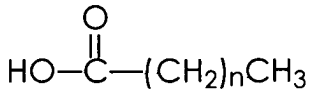
4-biphenylcarboxylic acid, α-phenyl-o-toluic acid, 2-bibenzylcarboxylic acid, 2,3,4,5,6-pentafluorophenoxyacetic acid, 2-phenoxybenzoic acid, 3-phenoxybenzoic acid, 2-benzoylbenzoic acid, 3-benzoylbenzoic acid, 4-benzoylbenzoic acid, 2-(4-fluorobenzoyl)benzoic acid, 2-(4-chlorobenzoyl)benzoic acid, 2-(4-chloro-3-nitrobenzoyl)benzoic acid, 1-naphthoic acid, 2-naphthoic acid, 4-fluoro-1-naphtnoic acid, 2-ethoxy-1-naphthoic acid, 1,8-naphthalaldehydic acid, 2-biphenylenecarboxylic acid, γ-oxo-5-acenaphthenebutyric acid, 9-fluorenecarboxylic acid, 1-fluorenecarboxylic acid, 4-fluorenecarboxylic acid, 9-fluorenone-1-carboxylic acid, 9-fluorenone-2-carboxylic acid, 9-fluorenone-4-carboxylic acid, 7-nitro-4-fluorenecarboxylic acid, chromone-2-carboxylic acid, 9-anthracenecarboxylic acid, anthraquinone-2-carboxylic acid, xanthene-9-carboxylic acid, 1-pyrenecarboxylic acid, or mixtures thereof.

18. A process according to claim 1 wherein the monoacid is of the formula



wherein n has an average value of about 36.

19. A process according to claim 1 wherein the monoacid is of the formula



wherein n has an average value of about 46.

20. A process according to claim 1 wherein the diisocyanate is of the formula

$$O{=}C{=}N{-}R_3{-}N{=}C{=}O$$

wherein R_3 is an alkylene group, an arylene group, an arylalkylene group, or an alkylarylene group.

21. A process according to claim 20 wherein R_3 is an unsubstituted alkylene group, an unsubstituted arylene group, an unsubstituted arylalkylene group, or an unsubstituted alkylarylene group.

22. A process according to claim 20 wherein R_3 is a substituted alkylene group, a substituted arylene group, a substituted arylalkylene group, or a substituted alkylarylene group.

23. A process according to claim 20 wherein R_3 is an alkylene group having hetero atoms therein, an arylene group having hetero atoms therein, an arylalkylene group having hetero atoms therein, or an alkylarylene group having hetero atoms therein, provided that no hetero atoms are directly bonded to either of the isocyanate groups.

24. A process according to claim 20 wherein R_3 is an alkylene group having no hetero atoms therein, an arylene group having no hetero atoms therein, an arylalkylene group having no hetero atoms therein, or an alkylarylene group having no hetero atoms therein.

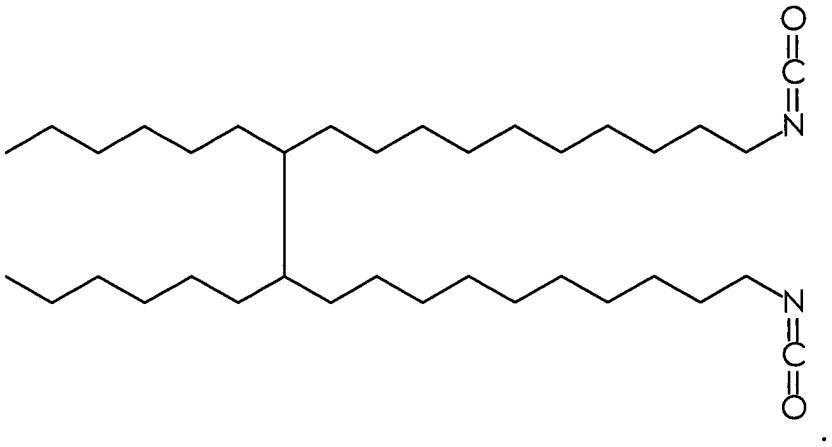
25. A process according to claim 20 wherein R_3 is a branched alkylene group having about 34 carbon atoms.

26. A process according to claim 20 wherein R_3 is an alkylene group of the formula $C_{34}H_{62+n}$ wherein n is an integer of 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, or 10.

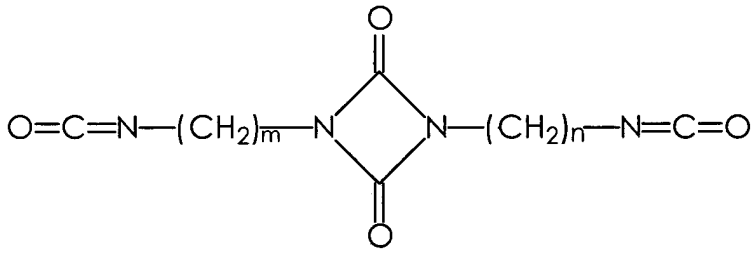
27. A process according to claim 1 wherein the diisocyanate is 1,4-diisocyanatobutane, 1,6-diisocyanatohexane, 1,8-diisocyanatooctane, 1,12-diisocyanatododecane, trimethylhexamethylene diisocyanate, 1,5-diisocyanato-2-methylpentane, cyclohexylene diisocyanate, bis(isocyanatomethane) cyclohexane, 4,4'-methylenebis(cyclohexyl isocyanate), isophorone diisocyanate, phenylene diisocyanate, bis(isocyanatomethyl)benzene, bis(1-isocyanato-1-methylethyl)benzene, toluene diisocyanate, diphenylmethane-4,4'-diisocyanate, hydrogenated diphenylmethane-4,4'-diisocyanate, tetramethylxylene diisocyanate, naphthylene-1,5-diisocyanate, 3,3'-dimethoxy-4,4'-biphenyldiisocyanate, 3,3'-dimethyl-4,4'-bimethyl-4,4'-biphenyldiisocyanate, 4,4'-biphenyldiisocyanate, tetramethylene xylene diisocyanate, 4,4'-methylenebis(2,6-diethylphenyl isocyanate), 1-chloromethyl-2,4-diisocyanatobenzene, 4,4'-oxybis(phenyl isocyanate), or mixtures thereof.

28. A process according to claim 1 wherein the diisocyanate is isophorone diisocyanate or 1,6-diisocyanatohexane.

29. A process according to claim 1 wherein the diisocyanate is of the formula



30. A process according to claim 1 wherein the diisocyanate is of the formula

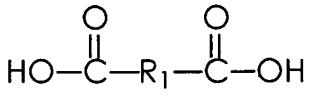


wherein m and n are each, independently of the others, integers representing the number of repeat $-CH_2-$ units.

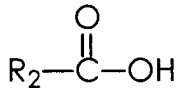
31. A process according to claim 30 wherein m and n are each 6.

32. A process according to claim 1 wherein the tetra-amide has a total number of carbon atoms of at least about 50.

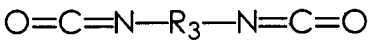
33. A process according to claim 1 wherein the diacid is of the formula



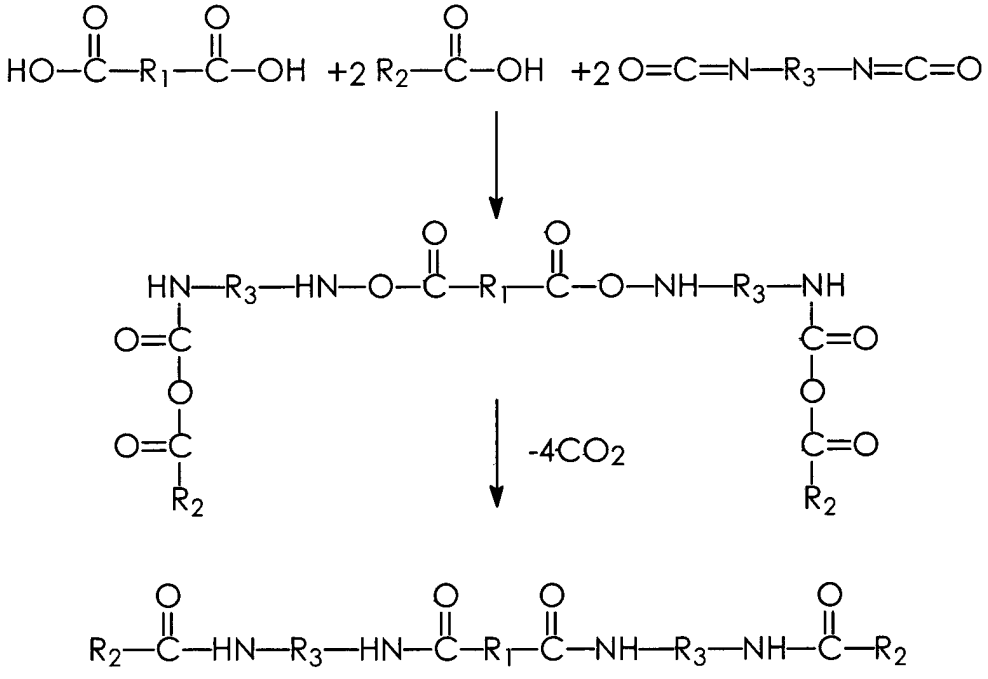
wherein R_1 is an alkylene group, an arylene group, an arylalkylene group, or an alkylarylene group, the monoacid is of the formula



wherein R_2 is an alkyl group, an aryl group, an arylalkyl group, or an alkylaryl group, the diisocyanate is of the formula



wherein R_3 is an alkylene group, an arylene group, an arylalkylene group, or an alkylarylene group, and the reaction proceeds as follows:



34. A process according to claim 1 wherein the diacid and the monoacid are first admixed prior to addition of the diisocyanate reactant.

35. A process according to claim 1 wherein the diacid and the monoacid are first admixed and heated prior to addition of the diisocyanate reactant.

36. A process according to claim 1 wherein the diacid, the monoacid, and a polyethylene wax are first admixed and heated prior to addition of the diisocyanate reactant.

37. A process according to claim 1 wherein the reaction takes place in an inert atmosphere.

38. A process according to claim 1 wherein the reaction mixture is heated to a temperature of at least about 60°C.

39. A process according to claim 1 wherein the reaction mixture is heated to a temperature of at least about 80°C.

40. A process according to claim 1 wherein the reaction mixture is heated to a temperature of at least about 120°C.

41. A process according to claim 1 wherein the reaction mixture is heated to a temperature of no more than about 400°C.

42. A process according to claim 1 wherein the reaction mixture is heated to a temperature of no more than about 300°C.

43. A process according to claim 1 wherein the reaction mixture is heated to a temperature of no more than about 200°C.

44. A process according to claim 1 wherein the reaction is carried out for a period of at least about 10 minutes.

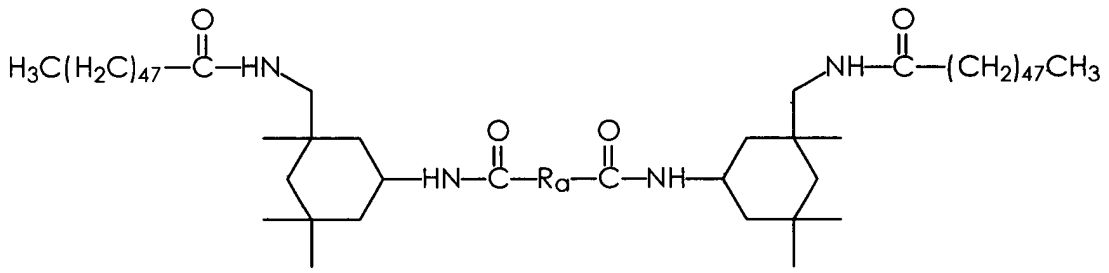
45. A process according to claim 1 wherein the reaction is carried out for a period of at least about 30 minutes.

46. A process according to claim 1 wherein the reaction is carried out for a period of at least about 60 minutes.

47. A process according to claim 1 wherein the monoacid, the diacid, and the diisocyanate are present in relative amounts such that the ratio of total number of COOH groups to total number of NCO groups is at least about 1:1.

48. A process according to claim 1 wherein a catalyst is added to the reaction mixture.

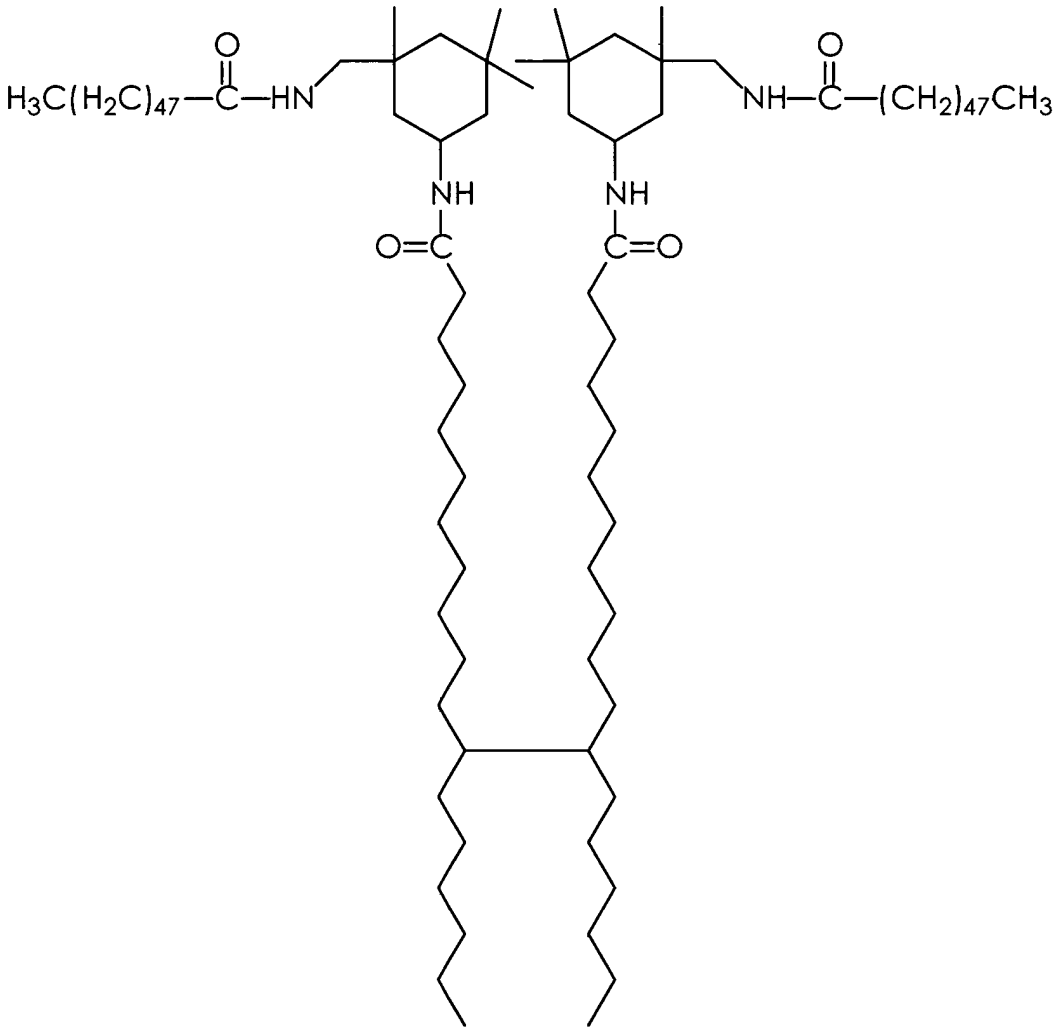
49. A process according to claim 1 wherein the tetra-amide product is of the formula



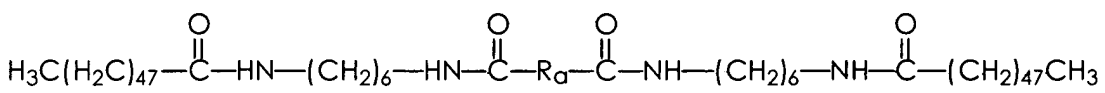
wherein R_a is a branched alkylene group having about 34 carbon atoms and which may include unsaturations and cyclic groups.

50. A process according to claim 49 wherein R_a is a group of the formula $C_{34}H_{62+n}$ wherein n is an integer of 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, or 10.

51. A process according to claim 1 wherein the tetra-amide product is of the formula



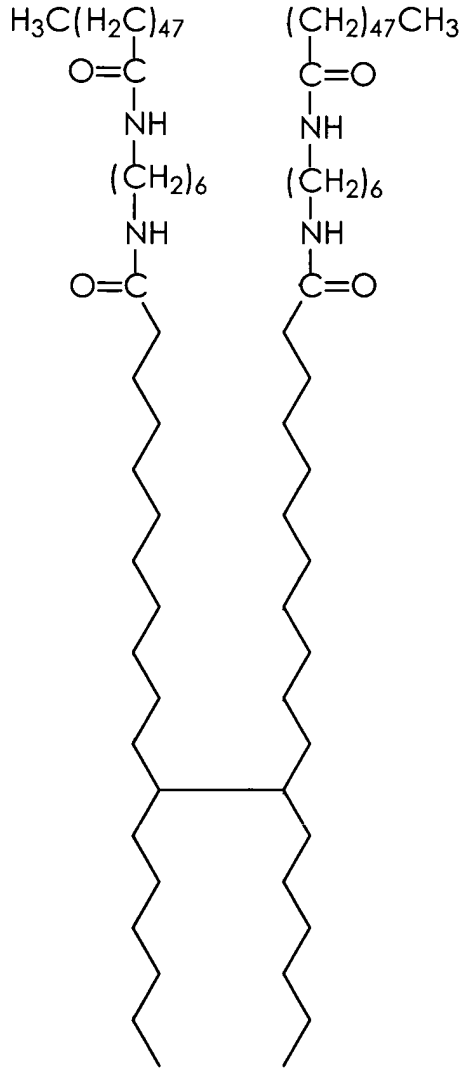
52. A process according to claim 1 wherein the tetra-amide product is of the formula



wherein R_a is a branched alkylene group having about 34 carbon atoms and which may include unsaturations and cyclic groups.

53. A process according to claim 52 wherein R_a is a group of the formula $C_{34}H_{62+n}$ wherein n is an integer of 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, or 10.

54. A process according to claim 1 wherein the tetra-amide product is of the formula



55. A process for preparing a phase change ink composition which comprises (a) carrying out a condensation reaction between a diacid, a monoacid, and a diisocyanate, thereby forming a tetra-amide; and (b) admixing the tetra-amide thus formed with a colorant, thereby forming a phase change ink.

56. A process according to claim 55 wherein the tetra-amide and the colorant are further admixed with a polyethylene wax.

57. A process according to claim 55 wherein the tetra-amide and the colorant are further admixed with a monoamide.

58. A process according to claim 55 wherein the tetra-amide and the colorant are further admixed with a urethane resin.

59. A process according to claim 55 wherein the tetra-amide is present in the ink in an amount of at least about 10 percent by weight of the ink and in an amount of no more than about 32 percent by weight of the ink, and wherein the tetra-amide and the colorant are further admixed with (i) a polyethylene wax, present in the ink in an amount of at least about 25 percent by weight of the ink and in an amount of no more than about 60 percent by weight of the ink; (ii) a stearyl stearamide wax, present in the ink in an amount of at least about 8 percent by weight of the ink and in an amount of no more than about 32 percent by weight of the ink; (iii) a urethane resin derived from the reaction of two equivalents of hydroabietyl alcohol and one equivalent of isophorone diisocyanate, present in the ink in an amount of at least about 6 percent by weight of the ink and in an amount of no more than about 16 percent by weight of the ink; (iv) a urethane resin that is the adduct of three equivalents of stearyl isocyanate and a glycerol-based alcohol, present in the ink in an amount of at least about 2 percent by weight of the ink and in an amount of no more than about 13 percent by weight of the ink; and (v) an antioxidant, present in the ink in an amount of at least about 0.01 percent by weight of the ink and in an amount of no more than about 1 percent by weight of the ink.

60. A process according to claim 55 wherein the tetra-amide is present in the ink in an amount of at least about 13 percent by weight of the ink and in an amount of no more than about 27 percent by weight of the ink, and wherein the tetra-amide and the colorant are further admixed with (i) a polyethylene wax, present in the ink in an amount of at least about 30 percent by weight of the ink and in an amount of no more than about 53 percent by weight of the ink; (ii) a stearyl stearamide wax, present in the ink in an amount of at least about 10 percent by weight of the ink and in an amount of no more than about 28 percent by weight of the ink; (iii) a urethane resin derived from the reaction of two equivalents of hydroabietyl alcohol and one equivalent of isophorone diisocyanate, present in the ink in an amount of at least about 8 percent by weight of the ink and in an amount of no more than about 14 percent by weight of the ink; (iv) a urethane resin that is the adduct of three equivalents of stearyl isocyanate and a glycerol-based alcohol, present in the ink in an amount of at least about 3 percent by weight of the ink and in an amount of no more than about 10 percent by weight of the ink; and (v) an antioxidant, present in the ink in an amount of at least about 0.05 percent by weight of the ink and in an amount of no more than about 0.5 percent by weight of the ink.

61. A process according to claim 55 wherein the tetra-amide is present in the ink in an amount of at least about 16 percent by weight of the ink and in an amount of no more than about 22 percent by weight of the ink, and wherein the tetra-amide and the colorant are further admixed with (i) a polyethylene wax, present in the ink in an amount of at least about 37 percent by weight of the ink and in an amount of no more than about 48 percent by weight of the ink; (ii) a stearyl stearamide wax, present in the ink in an amount of at least about 12 percent by weight of the ink and in an amount of no more than about 25 percent by weight of the ink; (iii) a urethane resin derived from the reaction of two equivalents of hydroabietyl alcohol and one equivalent of isophorone diisocyanate, present in the ink in an amount of at least about 10 percent by weight of the ink and in an amount of no more than about 12 percent by weight of the ink; (iv) a urethane resin that is the adduct of three equivalents of stearyl isocyanate and a glycerol-based alcohol, present in the ink in an amount of at least about 4.5 percent by weight of the ink and in an amount of no more than about 7.5 percent by weight of the ink; and (v) an antioxidant, present in the ink in an amount of at least about 0.1 percent by weight of the ink and in an amount of no more than about 0.3 percent by weight of the ink.

62. A process according to claim 55 wherein the colorant is present in the ink in an amount of at least about 0.1 percent by weight of the ink.

63. A process according to claim 55 wherein the colorant is present in the ink in an amount of no more than about 10 percent by weight of the ink.

64. A process according to claim 55 wherein the ink has a melting point of no lower than about 50°C.

65. A process according to claim 55 wherein the ink has a melting point of no lower than about 70°C.

66. A process according to claim 55 wherein the ink has a melting point of no lower than about 80°C.

67. A process according to claim 55 wherein the ink has a melting point of no higher than about 160°C.

68. A process according to claim 55 wherein the ink has a melting point of no higher than about 140°C.

69. A process according to claim 55 wherein the ink has a melting point of no higher than about 100°C.

70. A process according to claim 55 wherein the ink has a viscosity at jetting temperatures of no more than about 30 centipoise.

71. A process according to claim 55 wherein the ink has a viscosity at jetting temperatures of no more than about 20 centipoise.

72. A process according to claim 55 wherein the ink has a viscosity at jetting temperatures of no more than about 15 centipoise.

73. A process according to claim 55 wherein the ink has a viscosity at jetting temperatures of no less than about 2 centipoise.

74. A process according to claim 55 wherein the ink has a viscosity at jetting temperatures of no less than about 5 centipoise.

75. A process according to claim 55 wherein the ink has a viscosity at jetting temperatures of no less than about 7 centipoise.